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The effect of delayed operative management on hip fracture patients taking clopidogrel

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Aim: To ascertain the effect of delaying operative management for hip fracture patients on clopidogrel using blood loss and mortality as markers.

Methodology: This is a retrospective study of patients taking clopidogrel admitted to our trauma unit after sustaining a hip fracture from 1 January 2007 to 1 May 2009. Data on the patients' co-morbidities, indication for clopidogrel, pre- and post-operative haemoglobin and haematocrit, type of operation, mode of anaesthesia and mortality were collected.

Results: There were 30 patients sustaining one fracture each. 21 were females and 9 were males (F:M 7:3). Mean age was 82.27 years (range: 62–100). The patients were divided into 2 groups. Group A ($n = 10$) had their surgery within 48 h. Patients in Group B ($n = 20$) were operated on after 48 h. The mean delay to surgery for Group B was 6 days (range: 3–10 days). 21 patients had hemiarthroplasties, 4 had DHS, 1 had a total hip arthroplasty. Drop in haemoglobin was higher in Group A than Group B (mean Hb drop A: 3.13 g/dl vs. B: 1.97 g/dl). The 30-day mortality for Group A was 10% as compared to 25% in Group B. However, the in-hospital (A: 30% vs. B: 25%), 90 day (A: 50% vs. B: 30%) and 1 year (A: 60% vs. B: 40%) mortality rates were lower in Group B.

Conclusion: Patients on clopidogrel generally have more co-morbidities which may account for the higher mortality rates compared with the National average. The data suggests that patients who had early surgery had lower 30-day mortality. However in-hospital, 90-day and 1 year mortality rates were higher when compared to the delayed surgery group. This highlights that these patients pose a significant challenge and warrants further multi-centre research.

doi:10.1016/j.injury.2010.07.348

1B.26

Strategies to improve the management of hip fractures within a large teaching hospital

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Introduction: According to the recently published British Orthopaedic Association Standards for Trauma (BOAST) patients over the age of 60 years with hip fractures should be admitted to hospital within 4 h and surgery should be performed within 48 h of admission, unless there are clear reversible medical conditions. In addition a geriatrician should carry out a preoperative assessment for every patient and assessment of bone health, to reduce the possibility of future injury.

An audit of patients over the age of 60 years admitted to our institution with hip fractures in 2008 highlighted a significant problem in meeting the BOAST guidelines. Several changes were therefore implemented in order to improve the management of these patients including a daily dedicated hip fracture trauma list, extra Saturday dedicated hip lists and the introduction of the Fractured Neck of Femur Pathway.

The purpose of this study therefore was to evaluate whether the implementation of the above changes led to an improvement in the management of patients with neck of femur fractures.

Patients & methods: Completed audit cycle of hip fracture patients over the age of 60 years admitted to our unit over a 4-week period in November/December 2008 (24 patients) and November/December 2009 (26 patients).

Results: Over the 4-week period in 2008 83% of patients (20/24) were admitted within 4 h of presentation and 46% of patients (11/24) were operated on within 48 h of admission. Re-audit in November/December 2009 showed that 92% of patients (24/26) were admitted within the 4-h target and 77% of patients (20/26) were operated on within 48 h of admission ($p = 0.01$). Only 5% of patients (2/26) waited longer than 48 h without a medical reason ($p = 0.01$). All patients in both study groups were assessed by a Geriatrician pre- and post-operatively, compared to 58% of patients assessed by The National Hip Fracture Database Preliminary National Report 2009.

Conclusion: Implementation of dedicated hip fracture trauma lists and a standardised hospital Fracture Neck of Femur Pathway have proved to be an effective means of meeting the BOAST guidelines and have significantly improved the management of hip fractures in the older person in our unit.

doi:10.1016/j.injury.2010.07.349

1B.27

Subtrochanteric fractures of femur: fixation using proximal femoral nailing

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Background: Proximal femoral fractures are common in elderly patients. Implant failure and other complications are relatively common, particularly in non-compliant patients. The authors have retrospectively studied the results achieved with the AO/ASIF PFN system in the treatment of subtrochanteric fractures of the proximal femur. Between January 2005 and December 2008, 39 patients underwent intramedullary nailing with the PFN system with subtrochanteric fracture of femur.

Method: Retrospective study from January 2005 to December 2008. All subtrochanteric femur fractures seen in our hospital that underwent proximal femoral nailing were included in the study. Patient details were gathered from the theatre records. Data was collected from case notes.

Results: A total of 39 patients (25 women, 14 men) average age 70 years were available for the study. Mechanical fall accounted for 77% of cases. Right sided fractures were 56%. 24% were ASA 3, 44% patients were ASA 2 and 32% were ASA 1. 72% had spinal anaesthesia. Average delay in surgery 2.7 days. Average length of stay 29.74 days. 60% of the cases were operated by registrars. Average surgical time was 1hr and 39 min 58% had short nail. 5 were open procedures due to difficulty in reduction. 24% died within three months of the surgery. Solid union of the fracture was achieved in all remaining patients except two who was revised to femoral plating.

Conclusion: Cochrane database systematic review 2008 suggested that given the lower complication rate of the SHS in comparison with intramedullary nails, SHS appears superior for trochanteric fractures. Further studies are required to look into unstable subtrochanteric femur fractures. Our data suggest that PFN is responsible for the positive results in subtrochanteric fractures. At present we consider that the PFN is an acceptable implant for subtrochanteric fractures.

doi:10.1016/j.injury.2010.07.350